

What is claimed is:

1. A substrate processing method comprising:

a wet processing step performed in a wet processing apparatus to subject a substrate to a predetermined wet process by supplying thereto a processing solution and then to supply an anti-drying solution to said substrate subjected to the wet process thereby replacing said processing solution adhered to said substrate with said anti-drying solution;

a transport step following said wet processing step to transport said substrate, as wetted with said anti-drying solution, to a high-pressure drying apparatus; and

a drying step performed in said high-pressure drying apparatus for high-pressure drying said substrate by the use of a high-pressure fluid or a mixture of the high-pressure fluid and a chemical agent, as a processing fluid.

2. The substrate processing method according to claim 1, wherein a replacing solution having a higher affinity with said high-pressure fluid than said processing fluid is used as said anti-drying solution.

3. The substrate processing method according to claim 1, wherein said substrate is wet-transported between said apparatuses as accommodated in a transport container.

4. A substrate processing method comprising:

a wet processing step performed in a wet processing apparatus to subject a substrate to a predetermined wet process by supplying thereto a processing solution;

a first transport step following said wet processing step to transport said substrate, as wetted with said processing solution, to a replacing apparatus;

a replacing step performed in said replacing apparatus for supplying an anti-drying solution to said substrate thereby replacing said processing solution adhered to said substrate with said anti-drying solution;

a second transport step following said replacing step to transport said substrate, as wetted with said anti-drying solution, to a high-pressure drying apparatus; and

a drying step performed in said high-pressure drying apparatus for high-pressure drying said substrate by the use of a high-pressure fluid or a mixture of the high-pressure fluid and a chemical agent, as a processing fluid.

5. The substrate processing method according to claim 4, wherein a replacing solution having a higher affinity with said high-pressure fluid than said processing fluid is used as said anti-drying solution.

6. The substrate processing method according to claim 4, wherein

said substrate is wet-transported between said apparatuses as accommodated in a transport container.

7. A substrate processing apparatus comprising:

substrate retaining means for retaining a substrate;

processing solution supply means for supplying a processing solution to the substrate retained by said substrate retaining means thereby subjecting the substrate to a predetermined wet process; and

anti-drying solution supply means for supplying an anti-drying solution to said substrate subjected to said wet process thereby replacing said processing solution adhered to said substrate with said anti-drying solution.

8. The substrate processing apparatus according to claim 7, wherein said anti-drying solution supply means supplies, as said anti-drying solution, a replacing solution having a higher affinity with a high-pressure fluid than said processing solution.

9. A substrate processing apparatus comprising:

substrate retaining means for retaining a substrate wet with a processing solution; and

anti-drying solution supply means for supplying an anti-drying solution to the substrate retained by said substrate retaining means thereby replacing said processing solution adhered to said substrate with said anti-

drying solution.

10. The substrate processing apparatus according to claim 9, wherein said anti-drying solution supply means supplies, as said anti-drying solution, a replacing solution having a higher affinity with a high-pressure fluid than said processing solution.

11. A substrate processing system comprising:

a wet processing unit having the same construction as the substrate processing apparatus according to claim 7;

a high-pressure drying unit for high-pressure drying said substrate by the use of a high-pressure fluid or a mixture of the high-pressure fluid and a chemical agent, as a processing fluid; and

a transport unit for transporting said substrate, as wetted with said anti-drying solution, from said wet processing unit to said high-pressure drying unit.

12. The substrate processing system according to claim 11, wherein a replacing solution having a higher affinity with said high-pressure fluid than said processing solution is used as said anti-drying solution.

13. The substrate processing system according to claim 11, wherein said transport unit wet-transportes said substrate between said units, said substrate being accommodated in a transport container.

14. A substrate processing system comprising:

a wet processing unit for supplying a processing solution to a substrate thereby subjecting the substrate to a predetermined wet process;

a replacing unit having the same construction as the substrate processing apparatus according to claim 9;

a high-pressure drying unit for high-pressure drying the substrate delivered from said replacing unit by the use of a high-pressure fluid or a mixture of the high-pressure fluid and a chemical agent, as a processing fluid; and

a transport unit for transporting said substrate, as wetted with said processing solution, from said wet processing unit to said replacing unit, and for transporting said substrate, as wetted with said anti-drying solution, from said replacing unit to said high-pressure drying unit.

15. The substrate processing system according to claim 14, wherein a replacing solution having a higher affinity with said high-pressure fluid than said processing solution is used as said anti-drying solution.

16. The substrate processing system according to claim 14, wherein said transport unit wet-transportes said substrate between said units, said substrate being accommodated in a transport container.

17. A substrate processing apparatus comprising:

a plurality of developing units for performing different developing processes for a substrate, respectively;

a high-pressure processing unit for allowing a high-pressure fluid or a mixture of the high-pressure fluid and a chemical agent, as a processing fluid, to contact a surface of said developed substrate thereby performing a predetermined surface treatment for said developed substrate; and

a transport unit, capable of accessing said plural developing units and said high-pressure processing unit, for unloading the developed substrate from any one of said plural developing units and for loading said developed substrate into said high-pressure processing unit.

18. The substrate processing apparatus according to claim 17, wherein said transport unit wet-transportes said developed substrate from any one of said plural developing units to said high-pressure processing unit.

19. The substrate processing apparatus according to claim 17, comprising a plural number of said high-pressure processing units,

wherein said transport unit is capable of accessing said plural high-pressure processing units for unloading said developed substrate from any one of said plural developing units and for loading said developed substrate selectively to one of said plural high-pressure processing units.

20. The substrate processing apparatus according to claim 17, wherein said plural developing units each perform a replacing process as a final processing of said developing process for replacing the solution component adhered to said substrate with a replacing solution common to said plural developing units.